



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/763,423      | 01/26/2004  | Takahiro Aoki        | 042046              | 4551             |

38834 7590 11/23/2007  
WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
1250 CONNECTICUT AVENUE, NW  
SUITE 700  
WASHINGTON, DC 20036

|          |
|----------|
| EXAMINER |
|----------|

CUNNINGHAM, GREGORY F

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2624

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

.11/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/763,423

Applicant(s)

AOKI ET AL.

Examiner

Greg F. Cunningham

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. This action is responsive to communications of amendment received 09/05/2007.
2. The disposition of the claims is as follows: claims 1 - 20 are pending in the application.

Claim 1 is the only independent claim.

### *Specification*

3. In view of amended abstract, objection is withdrawn.

### *Claim Rejections - 35 USC § 112*

4. In view of amended claims, 112 rejections are withdrawn.

### *Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

6. Claim 1 is rejected under 35 U.S.C. 102(a) as being anticipated by Evans et al., (US 6,845,178 B1), hereafter Evans.

A. Evans discloses claim 1, “An image capture apparatus, comprising:  
a camera capturing image data of an object [col. 2, lns. 24-29, corresponding with ‘image is provided by a camera’; col. 3, lns. 16-35];

an illumination illuminating the object using a plurality of wavelengths [col. 2, lns. 29-32, corresponding with 'illumination can be lasers, LED illuminators, or bright-field and dark-field illuminators' and 'normal lighting'; wherein all but lasers correspond to "a plurality of wavelengths"];

a storage unit storing a recorded image of an object [col. 3, lns. 36-37, corresponding with 'Each picture taken by the camera 14 is output to a computer 16, where it is stored as an image.'];

a comparison-determination unit comparing [col. 1, lns. 51-54; col. 2, lns. 14-20; col. 4, lns. 47-51] the recorded image [col. 1, lns. 58-62 corresponding with 'In one embodiment of the invention, the method further comprises providing at least two reference images of at least one template using the same technique used to obtain each image of the object surface and creating the identification matrix using the reference images.', wherein comparison to the using an identification matrix is equivalent to comparison to using the reference image] with captured image data of the object [col. 2, lns. 24-26] and determining whether or not the recorded image and the captured image data match each other [col. 1, lns. 54-56; col. 4, ln. 66 - col. 5, ln. 3; col. 5, lns. 12-31; whereby comparison with the captured image via identification matrix to separate subject pixels into various defined regions – col. 5, ln. 32]; and

a material determination unit determining the material of the object from the image data of the object which has been obtained using the plurality of wavelengths [col. 5, lns. 26-31; col. 6, ln. 64 – col. 7, ln. 11 corresponding with 'metal coating', 'uncoated metal' and 'corroded metal'.], wherein the camera captures the image data of the object placed above the camera and the illumination [col. 3, lns. 20-21, corresponding with 'The vision system 10 includes a camera 14 positioned perpendicularly above the object surface 12.' See Fig. 1, wherein camera and

illuminators (18, 20 and 21) positioned above object (12) is equivalent with object placed above camera and illuminators.]” [as detailed].

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5, 7-10 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans as applied to claim 1 above, and further in view of Sharman (US 5,686,210).

A. Evans discloses claim 2, “The apparatus according to claim 1, wherein said illumination has a plurality of light sources having intensity peaks of different wavelengths, switches these light sources, and obtains an image of the object to be captured using the plurality of wavelengths” supra for claim 1.

However, Evans does not appear to disclose, “wherein said illumination has a plurality of light sources having intensity peaks of different wavelengths, switches these light sources, and obtains an image of the object to be captured using the plurality of wavelengths”, but Sharman does at [For at least: col. 2, lns. 23-24; col. 3, lns. 41-59; col. 5, lns. 46-54; col. 7, lns. 3-10: reflection techniques; col. 11, lns. 59-60: comparing print materials (reflectance); col. 8, lns. 45-50; col. 13, lns. 24-35]”.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with

identifying image-forming material type disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

B. Evans discloses claim 3, “The apparatus according to claim 1, wherein said illumination has a light source emitting light of a continuous range of wavelengths, and when the camera captures an image, an image of a specific wavelength is obtained using a filter” supra in claim 1.

However, Evans does not appear to disclose, “wherein said illumination has a light source emitting light of a continuous range of wavelengths, and when the camera captures an image, an image of a specific wavelength is obtained using a filter”, but Sharman does in [col. 4, lns. 42-45, wherein ‘lamp’ corresponds to “illumination has a light source emitting light of a continuous range of wavelengths” and ‘dichroic filters’ corresponds to “filter”].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and lamp source disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

C. Evans discloses claim 4, “The apparatus according to claim 1, further comprising: a brightness correction unit correcting a difference in brightness of illumination of light between different wavelengths on the object to be captured” supra for claim 1.

However, Evans does not appear to disclose, “a brightness correction unit correcting a difference in brightness of illumination of light between different wavelengths on the object to be captured”, but Sharman does at [col. 4, lns. 34-45].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and filter disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

D. Evans discloses claim 5, “The apparatus according to claim 4, wherein said brightness correction unit comprises a brightness correction table storing a correction coefficient for correction of brightness” supra for claim 4.

However, Evans does not appear to disclose, “wherein said brightness correction unit comprises a brightness correction table storing a correction coefficient for correction of brightness”, but Sharman does at [col. 4, lns. 34-41, wherein ‘linear mask and/or matrix’ corresponds to “correction table”]

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and linear mask and/or matrix disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

E. Evans and Sharman disclose claim 7, “The apparatus according to claim 1, wherein material determination is performed on the object to be captured using a part of an image of the object to be captured” supra for claim 1, wherein only a ‘part of the spectrum’ is used as indicative of the LED’s (wavelengths) employed rather than a full spectrum corresponds to “a part of an image of the object”

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

F. Evans discloses claim 8, “The apparatus according to claim 1, wherein as a result of the material determination, information about a capturing operation in which a different material is detected is stored when the material of the object to be captured is determined to be different from a predetermined material” supra for claim 1.

However, Evans does not appear to disclose, “wherein as a result of the material determination, information about a capturing operation in which a different material is detected is stored when the material of the object to be captured is determined to be different from a predetermined material”, but Sharman does in [col. 4, ln. 17 – col. 6, ln. 2, wherein ‘kodachrome’ and ‘ektachrome’ correspond to “different materials”; wherein ‘and passed to A/D converter 58 for storage’ corresponds to “information about a capturing operation”; and/or in col. 10, ln. 46 – col. 11, ln. 2, wherein ‘any values which are very different are rejected and a new average computed’ corresponds to “different materials” and ‘the scores are compared and the highest score identifies the material which is then displayed on LCD 136’ corresponds to “information about a capturing operation”]

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and A/D converter disclosed by Sharman, and



motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

G. Evans discloses claim 9, “The apparatus according to claim 1, wherein an image obtained using one wavelength emitted by the illumination is compared with the recorded image” supra for claim 1.

However, Evans does not appear to disclose, “wherein an image obtained using one wavelength emitted by the illumination is compared with the recorded image”, but Sharman does in [col. 4, lns. 8-19]”.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

H. Sharman discloses claim 10, “The apparatus according to claim 1, further comprising: a monitor unit indicating to a user a state in which the object to be captured is held” supra for claim 1.

However, Evans does not appear to disclose, “a monitor unit indicating to a user a state in which the object to be captured is held”, but Sharman does in [col. 10, ln. 64 – col. 11, ln. 2, wherein ‘LCD 136’ corresponds to “monitor unit” and ‘appropriate message is displayed’ corresponds to “a state in which the object to be captured is held”]”.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with

identifying image-forming material type and LCD disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

J. Evans discloses claim 15, “The apparatus according to claim 1, wherein a standard reflecting object is captured together with the object to be captured to correct a difference in brightness of the object to be captured and illuminated by light having different wavelengths” supra for claim 1.

However, Evans does not appear to disclose, “wherein a standard reflecting object is captured together with the object to be captured to correct a difference in brightness of the object to be captured and illuminated by light having different wavelengths”, but Sharman does in [col. 1, lns. 50-62, wherein ‘standard AA red filter’ and ‘control system for photographic colour printers and operates in a similar way to the method described above’ correspond to “standard reflecting object”]”.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and AA red filter disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

K. Evans discloses claim 11, “The apparatus according to claim 1, wherein image data are obtained using different wavelengths between an even-numbered row and an odd-numbered row of a scanning line of an image obtained by said camera” supra for claim 1.

However, Evans does not appear to disclose, “wherein image data are obtained using different wavelengths between an even-numbered row and an odd-numbered row of a scanning line of an image obtained by said camera”, but Sharman does in [col. 6, ln. 43 – col. 7, ln. 10, wherein 72’ and 72” corresponds to “an even-numbered row and an odd-numbered row of a scanning line of an image” or visa-versa and ‘by using other wavelengths in the visible and near infrared’ corresponds to “different wavelengths”]”.

While although Sharman is not explicit with “an even-numbered row and an odd-numbered row of a scanning line of an image for different wavelengths”, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply brightness correction unit disclosed by Sharman in combination with items 72’ and 72” corresponding to “an even-numbered row and an odd-numbered row of a scanning line of an image” or visa-versa and ‘by using other wavelengths in the visible and near infrared’ corresponding to “different wavelengths” as disclosed by Shaman.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with identifying image-forming material type and even and odd numbered rows disclosed by Sharman, and motivated to combine the teachings because it would provide for a method of identifying image-forming materials as revealed by Sharman in col. 2, lns. 7-8.

9. Claims 6, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans and Sharman as applied to claims 4 and 1, respectively, above, and further in view of Ishiguro, (US 6,029,015).

A. Evans and Sharman disclose claim 6, “The apparatus according to claim 4, further comprising: a distance sensor measuring a distance to the object to be captured, wherein said brightness correction unit comprises a brightness correction table storing a correction coefficient for correction of brightness for each distance to the object to be captured” supra for claim 4.

However, Evans and Sharman do not appear to disclose “further comprising: a distance sensor measuring a distance to the object to be captured, wherein said brightness correction unit comprises a brightness correction table storing a correction coefficient for correction of brightness for each distance to the object to be captured”, but Ishiguro does in col. 6, lns. 36-67.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply brightness correction unit disclosed by Evans and Sharman in combination with correction table according to distance disclosed by Ishiguro, and motivated to combine the teachings because it would provide for the quantity of flash illumination light forming a proportion of at least 30% of the quantity of light necessary for proper film exposure regardless of subject distances, in close up shots in which a subject fills most of the frame, the brightness of the subject is enhanced as revealed by Ishiguro in col. 2, lns. 1-9.

B. Evans and Sharman disclose claim 13, “The apparatus according to claim 1, further comprising: a brightness correction unit having a brightness correction table storing a correction coefficient for correction of brightness to correct a difference in brightness of light between different wavelengths emitted to the object to be captured” supra for claim 1.

However, Evans and Sharman do not appear to disclose “further comprising: a brightness correction unit having a brightness correction table storing a correction coefficient for correction of brightness to correct a difference in brightness of light between different wavelengths emitted

to the object to be captured”, but Ishiguro does in col. 6, lns. 36-67, whereby ‘strobe light’ corresponds to multiple and different wavelengths.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply brightness correction unit disclosed by Evans and Sharman in combination with correction table according to distance disclosed by Ishiguro, and motivated to combine the teachings because it would provide for the quantity of flash illumination light forming a proportion of at least 30% of the quantity of light necessary for proper film exposure regardless of subject distances, in close up shots in which a subject fills most of the frame, the brightness of the subject is enhanced as revealed by Ishiguro in col. 2, lns. 1-9.

C. Evans and Sharman disclose claim 14, “The apparatus according to claim 13, wherein said brightness correction table is generated by comparing data obtained when said image capture apparatus performs a first operation with recorded data using the obtained data when similarity is within a predetermined range” supra for claim 1.

However, Evans and Sharman do not appear to disclose “wherein said brightness correction table is generated by comparing data obtained when said image capture apparatus performs a first operation with recorded data using the obtained data when similarity is within a predetermined range”, but Ishiguro does in col. 6, lns. 36-67, whereby ‘distances are divided into four ranges’ corresponds to when similarity is within a predetermined range.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply brightness correction unit disclosed by Evans and Sharman in combination with correction table according to distance ranges disclosed by Ishiguro, and motivated to combine the teachings because it would provide for the quantity of flash

illumination light forming a proportion of at least 30% of the quantity of light necessary for proper film exposure regardless of subject distances, in close up shots in which a subject fills most of the frame, the brightness of the subject is enhanced as revealed by Ishiguro in col. 2, lns. 1-9.

10. Claim 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans as applied to claim 1, and further in view of Bulman et al., (US 2003/0051255 A1), hereinafter Bulman.

A. Evans discloses claim 16, "The apparatus according to claim 1, further comprising a network communications function" supra for claim 1.

However, Evans does not appear to disclose "further comprising a network communications function", but Bulman does in [para. 0038, 0118 and 0267].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison disclosed by Evans in combination with Internet network disclosed by Bulman, and motivated to combine the teachings because it would provide for remote access and image retrieval as disclosed by Bulman in [para. 0023].

B. Evans discloses claim 17, "The apparatus according to claim 16, wherein the recorded image and wavelength characteristic of the recorded image are recorded in the apparatus connected over a network, or the recorded image and the wavelength characteristic of the recorded image are updated at an instruction from the apparatus" supra for claim 16.

However, Evans does not appear to disclose "wherein the recorded image and wavelength characteristic of the recorded image are recorded in the apparatus connected over a

network, or the recorded image and the wavelength characteristic of the recorded image are updated at an instruction from the apparatus”, but Bulman does in [para. 0038, 0118 and 0267].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison unit disclosed by Evans in combination with using the Internet network for electronic delivery disclosed by Bulman, and motivated to combine the teachings because it would provide for remote access and image retrieval as disclosed by Bulman in [para. 0023].

C. Evans discloses claim 18, “The apparatus according to claim 16, wherein in network communications, encrypted data are communicated” supra for claim 16.

However, Evans does not appear to disclose “wherein in network communications, encrypted data are communicated”, but Bulman does in [para. 0038, 0118 and 0267].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison unit disclosed by Evans in combination with Internet network and encryption disclosed by Bulman, and motivated to combine the teachings because it would provide for remote access and image retrieval as disclosed by Bulman in [para. 0023].

D. Evans discloses claim 19, “The apparatus according to claim 1, further comprising: an external storage medium access unit reading data from an external storage medium, wherein the recorded image and wavelength characteristic of the recorded image are recorded and updated from the external storage medium” supra for claim 1.

However, Evans does not appear to disclose “further comprising: an external storage medium access unit reading data from an external storage medium, wherein the recorded image

and wavelength characteristic of the recorded image are recorded and updated from the external storage medium”, but Bulman does in [para. 0038, 0118 and 0267, wherein Internet network corresponds to “external storage medium”].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison unit disclosed by Evans in combination with Internet network (external storage medium) disclosed by Bulman, and motivated to combine the teachings because it would provide for remote access and image retrieval as disclosed by Bulman in [para. 0023].

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans as applied to claim 1, and further in view of Enright et al., (US 6,583,813 B1), hereinafter Enright.

A. Evans discloses claim 20, “The apparatus according to claim 1, further comprising: a peripheral image capture camera capturing a state of a surrounding area when the object to be captured is taken” supra for claim 1.

However, Evans does not appear to disclose “further comprising: a peripheral image capture camera capturing a state of a surrounding area when the object to be captured is taken”, but Enright does in [col. 39, lns. 22-32].

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply image comparison unit disclosed by Evans in combination with capturing image data related to users, documents, surroundings disclosed by Enright, and motivated to combine the teachings because it would provide for remote notification and conditions occurring as disclosed by Enright in [col. 3, lns. 58-60].



*Allowable Subject Matter*

12. Claim 12 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Response to Arguments*

13. Applicant's arguments with respect to claim 1-11 and 13-20 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Responses***

15. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.

***Inquiries***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory F. Cunningham whose telephone number is (571) 272-7784.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Bella can be reached on (571) 272-7778. The Central FAX Number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory F. Cunningham  
Examiner, Art Unit 2624

gfc

11/16/2007



MATTHEW C. BELLA  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600